RUST GEOTECH INC.

Spectral Gamma-Ray Borehole
Log Data Report

Borehole 60-02-10

Log Event A

Borehole Information

Farm : U	**Tank :** U-102	**Site Number :** 299-W18-141
N-Coord : 38,217	**W-Coord :** 75,787	**TOC Elevation :** 664.98
Water Level, ft :	**Date Drilled :** 8/31/1974	

Casing Record

Type : Steel-welded	Thickness : 0.280	ID, in. : 6
Top Depth, ft. : 0	Bottom Depth, ft. : 125	

Borehole Notes:
According to the driller's records, this borehole was not perforated or grouted.

Equipment Information

Logging System : 2	**Detector Type :** HPGe	**Detector Efficiency:** 35.0 %
Calibration Date : 03/1995	**Calibration Reference :** GJPO-HAN-1	**Logging Procedure :** P-GJPO-1783

Log Run Information

Log Run Number : 1	**Log Run Date :** 10/5/1995	**Logging Engineer:** Bob Spatz
Start Depth, ft.: 0.0	**Counting Time, sec.:** 100	**L/R :** L **Shield :** N
Finish Depth, ft. : 31.0	**MSA Interval, ft. :** 0.5	**Log Speed, ft/min.:** n/a

Log Run Number : 2	**Log Run Date :** 10/5/1995	**Logging Engineer:** Bob Spatz
Start Depth, ft.: 124.5	**Counting Time, sec.:** 100	**L/R :** L **Shield :** N
Finish Depth, ft. : 41.5	**MSA Interval, ft. :** 0.5	**Log Speed, ft/min.:** n/a

Log Run Number : 3	**Log Run Date :** 10/9/1995	**Logging Engineer:** Bob Spatz
Start Depth, ft.: 30.0	**Counting Time, sec.:** 100	**L/R :** L **Shield :** N
Finish Depth, ft. : 42.5	**MSA Interval, ft. :** 0.5	**Log Speed, ft/min.:** n/a

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Analysis Information

Analyst : S.E. Kos

Data Processing Reference : P-GJPO-1787 Analysis Date : 4/11/1996

Analysis Notes :

This borehole was logged in three log runs. The pre- and post-field verification spectra indicate that the logging system was operating properly during data collection. The energy/channel drift observed during the logging runs did not exceed the search parameters of the processing software, and multiple energy calibrations were not required to process the data. Data overlaps occurred when the same depth intervals were logged between the log runs. The calculated concentrations were within the statistical uncertainty of the measurements, indicating good repeatability.

The casing thickness is presumed to be 0.280 inch (in.), on the basis of published thickness for schedule-40, 6-in. steel casing. Casing-correction factors for a 0.25-in.-thick steel casing were applied during analysis.

Cs-137 was the only man-made radionuclide detected. Cs-137 occurred from the ground surface to a depth of 1.5 ft, intermittently from 6 to about 14 ft, and at the bottom of the borehole. All Cs-137 concentrations were less than 1 pCi/g, except at the surface where a concentration of about 3.5 pCi/g was measured.

Details regarding the interpretation of the data for this borehole are presented in the Tank Summary Data Reports for tanks U-102 and U-103.

Log Plot Notes:

Separate log plots show the man-made (e.g., Cs-137) and the naturally occurring radionuclides (K-40, U-238, and Th-232). The natural radionuclides can be used for lithology interpretations. The headings of the plots identify the specific gamma rays used to calculate the concentrations.

A combination plot includes both the man-made and natural radionuclides, in addition to the total gamma derived from the spectral data and the Tank Farms gross gamma log. The gross gamma plot displays the latest available digital data. No attempt has been made to adjust the depths of the gross gamma logs to coincide with the SGLS data.

Uncertainty bars on the plots show the statistical uncertainties for the measurements as 95-percent confidence intervals. Open circles on the plots give the minimum detection level (MDL). The MDL of a radionuclide represents the lowest concentration at which positive identification of a gamma-ray peak is statistically defensible.